Far Infrared Structure of Spiral Galaxies From the IRAS CPC Images



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Significant extended far infrared ($50\mu m$ and $100\mu m$) structure has been found for five face-on spiral galaxies (NGC2403, M51, M83, NGC6946, and IC342) from fourteen galaxies searched in the IRAS CPC catalogue. Images were initially processed to remove instrumental and background artifacts, the isophotal centroids of each image determined, and multiple images of each galaxy (for each wavelength) superimposed and averaged to improve signal-to-noise. Calibration of these images was performed using IRAS survey array data. Infrared isophotes were then superimposed on optical (blue) images so that direct structural comparisons could be made.